

IN THE CLAIMS

Please cancel claims 4, 8 and 14:

1. (Previously Amended) A module for optical communication having a modulator integrated laser includes a semiconductor laser active region and an optical modulation region for modulating the light from the semiconductor laser active region; and a temperature control region for controlling temperature of at least the optical modulation region, said semiconductor laser active region having a multiple-quantum well structure having at least two quaternary mixed crystal layers in which a band offset of a conduction band is larger than a band offset of a valence electron band, said at least two quaternary mixed crystal layers being selected from the group consisting of quaternary mixed compounds of In, Ga, Al and As and of quaternary mixed compounds of In, Ga, N and As, wherein a temperature of a semiconductor laser active region or a temperature of a component in thermal contact with the semiconductor laser active region for holding the temperature of the semiconductor laser active region is set to 35°C or higher during operation of the semiconductor laser active region and the optical modulation region.

2. (Original) A module for optical communication as defined in claim 1, wherein the temperature control component is a heating component or a heater.

3. (Original) A module for optical communication as defined in claim 1, wherein the temperature control component is disposed without having a cooling component.

4. Cancelled

5. (Previously Amended) A module for optical communication having a modulator integrated laser includes a semiconductor laser active region having at least two active regions and an optical modulation region for modulating the light from the semiconductor laser active regions; and a temperature control component for temperature control of at least the optical modulation region, and a control component for controlling the wavelength of the light emitted from the semiconductor laser active region, said semiconductor laser active region having a multiple-quantum well structure having at least two quaternary mixed compounds layers in which a band offset of a conduction band is larger than a band offset of a valence electron band, said at least two quaternary mixed crystal layers being selected from the group consisting of quaternary mixed compounds of In, Ga, Al and As and a quaternary mixed crystals of In, Ga, N and As, wherein a temperature of at

least the semiconductor laser active region or a temperature of the component in thermal contact with the semiconductor laser active region for holding the temperature of the semiconductor laser active region is set to 35°C or higher during operation of the semiconductor laser active region and the optical modulation region.

6. (Original) A module for optical communication as defined in claim 5, wherein the temperature control component is a heating component or a heater.

7. (Original) A module for optical communication as defined in claim 5, wherein the temperature control component is disposed without having a cooling component.

8. Cancelled

9. (Previously Amended) A module for optical communication as defined in claim 5, wherein the semiconductor laser active region and the optical modulation region are constituted, respectively, with semiconductor chip regions separated from each other.

10. (Previously Amended) A module for optical communication as defined in claim 5, wherein the semiconductor laser active region and the optical modulation region are constituted as semiconductor chip regions integrated on one same substrate.

11. (Previously Amended) An optical transmission module having a modulator integrated laser includes a semiconductor laser active region and a plurality of optical modulation regions for modulating the light from the semiconductor laser active region, a multiplexer for multiplexing the outputted light and a temperature control component for temperature control of at least the optical modulation region, said semiconductor laser active region has a multiple-quantum well structure having at least two quaternary mixed crystal layers in which a band offset of a conduction band is larger than a band offset of a valence electron band, said at least two quaternary mixed crystal layers being selected from the group consisting of quaternary mixed compounds of In, Ga, Al and As and a quaternary mixed compounds of In, Ga, N and As, and the temperature of at least the semiconductor laser active region or the temperature of the component in thermal contact with the semiconductor laser active region for holding the temperature of the semiconductor laser active region is set to 35°C or higher during operation of the semiconductor laser active region and the

optical modulation region.

12. (Original) A module for optical communication as defined in claim 11, wherein the temperature control component is a cooling component or a heater.

13. (Original) A module for optical communication as defined in claim 11, wherein the temperature control component is disposed without having a cooling component.

14. Cancelled